REMARKS

This communication is in response to the Office Action mailed on November 27, 2007. In the Office Action, claims 1-5, 7-20, and 32-51 were pending and were rejected.

Claim Rejections 35 U.S.C. § 102

Claims 1-7, 11, 15, 17, 19, 32-37, 39-40, 41-44, 48, and 51 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yamaguchi (U.S. Pat. No. 5,734,889). Of these claims, claims 1, 32 and 41 are independent.

Independent claim 1 has been amended to recite a method of processing data stored in a structured data source. The method includes receiving natural language input and analyzing the natural language input to identify semantic information contained therein. Portions of the natural language input are associated with the command object identifying a command from a plurality of commands, a frame object identifying how to render data from a plurality of different ways to render data and an entity object of a schema based on the semantic information and the natural language input. The entity object relates to data in the data source that is to be rendered based on the command object and the frame object. Data from the data source is rendered in a table of columns and rows based on the schema and associated portions of the natural language input. In addition to further clarifying language, amended claim 1 recites subject matter recited in claim 4, which has been canceled.

Yamaguchi describes retrieving data and inputting retrieved data to a spreadsheet. A descriptive sentence input means and a natural language interface means are utilized to implement a retrieval formula. In utilizing the retrieval formula, Yamaguchi only describes a single command (i.e., retrieving). Additionally, Yamaguchi makes no mention of how data is to be rendered, but only mentions particular tables. Instead, since there is only a single retrieve command, it is likely that data is rendered in the same manner in which it is stored in the database. To this extent, Yamaguchi fails to discuss a frame object and the Office Action has

failed to cite any objective evidence related to the use of a frame object. From the reading of Yamaguchi, only one way to render data is provided.

In contrast, the subject matter of claim 1 recites a flexible approach to accessing data from a database and rendering the data in a table of columns and rows. For example, a command object identifies a command from a plurality of commands. The command could be show, hide, filter, etc. Additionally, claim 1 recites a frame object that identifies how to render the data from a plurality of different ways. Thus, some data may be displayed in a column whereas other data is displayed in a row depending on the natural language input received. It is submitted that these features are simply not taught by Yamaguchi. Thus, amended claim 1 is believed to be allowable and withdrawal of the rejection to claim 1 is respectfully requested. Claims 2-3, 5-7, 11, 15, 17 and 19 are also believed to be allowable at least based on their relation to claim 1.

Independent claim 32 recites a method of processing information to drive an application. The method includes providing an interactive interface to a user for entering a natural language input and receiving the natural language input. The natural language input is analyzed to identify semantic information contained therein. The schema is accessed to identify a command object, a frame object and an entity object based on the semantic information and the natural language input. The command object identifies a command performed in the application and the frame object identifies how to render data. The entity object is associated with data used by the application. An action is performed that is associated with the application based on the command object, the frame object and the entity object. The frame object associates the entity object with the command object such that the frame object defines what data identified by the entity object is displayed in the columns and what data identified by the entity object is displayed in the rows. The action includes rendering data from a data source in a table of columns and rows.

As discussed above, in contrast to Yamaguchi, the subject matter of claim 32 provides a frame object that defines what data is to be provided in the columns and what data is to be provided in rows. Yamaguchi does not provide this flexible interface that allows a user, through

the natural language input, to specify where data is to be displayed. Instead, as suggested above, it appears that the data is merely reproduced as a function of how it is stored in a particular database. As a result, independent claim 32 is believed to be allowable. Furthermore, claims 33-37 and 39-40 are also believed to be allowable at least based on their relation to claim 32.

Independent claim 41 recites a method of displaying information from a data source. The method includes receiving a first natural language input from a user and analyzing the first natural language input to identify semantic information contained therein. Portions of the natural language input are associated with a command object, a frame object and an entity object of a schema based on the semantic information and first natural language input. A table of columns and rows is displayed to the user as a function of the command object, the frame object and the entity object. A second natural language input is received from the user referring to the table of columns and rows. The schema is altered based on the second natural language input and the table is modified as a function of the altered schema and the modified table is displayed to the user.

In contrast to the subject matter recited in claim 41, Yamaguchi simply does not disclose or otherwise describe modifying a current table that has been displayed. Throughout Yamaguchi, the only commands that are utilized are retrieval of data. Thus, providing a second natural language input to the system of Yamaguchi would merely retrieve more data based on the entered input and would not bring into account what table is currently being displayed and/or how to modify the current table. The subject matter of claim 41 provides a more efficient way to modify this table data in order to provide a more user friendly interface. As such independent claim 41 is believed to be allowable. Claims 42-44, 48 and 51 are also believed to be allowable at least based on their relation to claim 41.

Claim Rejections 35 U.S.C. § 103

Claims 8-10, 12, 18, 45-47, and 49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi and further in view of Barry et al. (U.S. Publication No.

2005/0216421). Claims 13 and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi and further in view of Bensoussan et al. (U.S. Pat. No. 6,581,068). These claims are believed to be allowable at least based on the relation to their respective independent claims.

Based on the foregoing, Applicants respectfully request that the present application be allowed. Favorable action is requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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